ORD 1025
10-18-12
4b

From: MOORE Fredrick
To: Cole, Connie; Risher, Mike
Subject: FW: questions re info the disc you sent
Date: Tuesday, June 12, 2012 10:56:11 AM

My initial response to EPA ...

From: MOORE Fredrick
Sent: Monday, June 11, 2012 3:05 PM
To: 'Linda Meyer'
Subject: RE: questions re info the disc you sent

Hi Linda, my perspectives below.

Regardless, we have started discussing on our side how we can use our in-house PID and other instruments and use them to asses current conditions. I'll let you know how that idea progresses.

Cheers, Fredrick

From: Linda Meyer [mailto:Meyer.Linda@epamail.epa.gov]
Sent: Friday, June 08, 2012 2:15 PM
To: MOORE Fredrick
Subject: questions re info the disc you sent

Hi Fredrick- I have been looking at the info you sent on the disc and am wondering about your perspective on the gas. Prior to the carbon dioxide injection work there was sampling to characterize the HCN. The results were 970 ppm for HCN. This is pretty high from the human health toxicity perspective.

(To be honest, at the time I didn't review the data much. The mindset being at the time that it was voluntary so we let them continue on their RD&D project and I would look at the data if they decided to implement the CO_2 treatment which of course they dropped. The issue of health hasn't concerned me over the years because of the numerous visits of both Lockheed and DEQ and though we have smelled "leachate" from vents and the tank, no exposure issue has come up. I know that sounds a little like the canary in the coal mine mentality, but over the years there just (to us) has not been a risk. Looking at the data today, I see notes that the CN spikes from highs in the hundreds back down to zero. Other notes state that the collection comes from the crook of the neck of the vent, so there might me some artificial collection densification going on more than a constant emission of CN at high levels.)

The IDLH is 50 ppm. I have not looked at the permit condition for this but understand their is a requirement to approach the vents from up-wind.

(I don't think it's in the permit, or at least I certainly wouldn't make it a permit condition. Best guess: I think Christy is quoting a work plan whereby reacting to data showing a presence of gasses, a proactive H&S plan was developed. For those of us with a familiarity of the landfill,

such precautions have not been needed, so there is not a wind sock)

I did not see a wind sock when I was out there, did I miss that? I am just wondering why there aren't more precautions due to this measured level. Also with methane and hydrogen sulfide pegged the meters, which were at 100% LEL - do you think it is safe to operate that blower near those vents?

(My mindset back when is that with the presence of hydrogen at the LEL, that lightning was the most probable ignition source and was satisfied from there, but of course back then there wasn't a blower. When the blower was attached, I don't think DEQ or ARCADIS would conscientiously think of it as a spark source because unconsciously we think the landfill is at low risk. Maybe because part of these thoughts are that vent designs are pretty standard with landfills (that produce gas) because their purpose is to withdraw the gas from doing any damage to the landfill and at introduction to the atmosphere, such dilution diminishes the gases' risk. So as I think about it today, I think there is a fundamental belief that there are no explosive concentrations at the vents outlets and if true, would make sparking not an issue. Maybe the blower, by mixing air and gasses more forcefully and propelling them into the atmosphere at an increased rate aids in diminishing the explosive risk. At this time, too, with water decreasing in mass in the landfill, as shown by the drips now at the leachate tank, the chemical reactions causing gas formation has subsided since last gas was measured

wouldn't a spark ignite that gas? (What about the gases escaping from the sides of the unit?

(Good question, I think mostly of precipitation coming in through the sides. Gas emission would certainly be more broad and dilute than at the gas vent. When the waste was just a wet waste pile, I'm not aware of chemical exposure being a problem. I did hear that there was an exothermic reaction that caused holes in the tarps (to keep waste dry) to burn in.

Maybe I don't have the whole picture. Thanks.

I can't say my thoughts and assertions come with a 100% guarantee. This has given me some food for thought and I'll keep in touch.

Linda Meyer
U.S. EPA Region 10
1200 Sixth Avenue, Suite 900, AWT-121
Seattle, WA 98101-3140
phone (206)553-6636
fax (206)553-8509